

This chapter describes the S24™ Frame Buffer hardware options.

S24 Application Compatibility

The default visual of OpenWindows™ running on a system with an S24 Frame Buffer is 24-bit TrueColor Visual. Some older 8-bit windows applications that have been written without consideration for portability may not work with the default 24-bit visual of the S24 Frame Buffer.

There is a simple workaround for these applications when starting OpenWindows. As root, enter:

```
# openwin -dev /dev/fbs/tcx0 defdepth 8
```

This workaround sets the default visual to 8 bits. All applications can now be executed in 8-bit mode unless they explicitly request 24 bits or the best available visual.

The following 24-bit visuals are exported in the Solaris™ 2.4 software environment:

- 24-bit TrueColor visual
- 24-bit TrueColor Linear visual
- 24-bit DirectColor visual

The nonlinear visual is displayed before the linear visual on the screen visual list. Nonlinear visual is the default 24-bit TrueColor visual. If you prefer gamma-corrected 24-bit TrueColor to become your default value, you can modify the order of the visual list by using the `tcxconfig` command, which is provided in the `SUNWtcxow` package. Refer to the `tcxconfig` man page for more information.

OpenWindows should not be running when you run the `tcxconfig` script. Start OpenWindows after `tcxconfig` has set the linearity you desire.

Entering `tcxconfig` without options displays the current default setting.

```
# /usr/sbin/tcxconfig
linear
```

`linear` means that the linear visual is the default 24-bit TrueColor visual. This means that color is gamma corrected.

`nonlinear` means that the nonlinear visual is the default 24-bit TrueColor visual.

To change the setting, enter the `tcxconfig` command with one of the above options. For example:

```
# /usr/sbin/tcxconfig nonlinear
```

S24 Frame Buffer Screen Resolutions

The S24 frame buffer in the SPARCstation™ 5 supports three different screen resolutions. You may select a screen resolution other than the default value. This is performed at the `ok` prompt.

Default Screen Resolutions

Table 2-1 lists the default screen resolutions by monitor ID sense code.

Table 2-1 S24 Frame Buffer Monitor Sense Codes

Code	Screen Resolution
7	1152 × 900 at 66 Hz
6	1152 × 900 at 76 Hz
5	1024 × 768 at 70 Hz
4	1152 × 900 at 76 Hz
3	1152 × 900 at 66 Hz
2	1152 × 900 at 76 Hz
1	1152 × 900 at 66 Hz
0	1152 × 900 at 66 Hz

Changing the Screen Resolution

There are two methods of changing the screen resolution, depending on the frame buffer you select to be console. One method sets the default console device to the desired resolution. The other method forces the console to be the S24 monitor at a specified resolution.

To change the screen resolution:

- 1. With the SPARCstation 5 powered on, bring the system down to the `ok` prompt.**

- 2. At the `ok` prompt for the console-device selected by the CPU boot PROM, enter:**

```
ok setenv output-device screen:resolution
```

where *resolution* is one of the following:

resolution	Screen Resolution
r1152x900x66	1152 × 900 at 66 Hz
r1152x900x76	1152 × 900 at 76 Hz
r1024x768x70	1024 × 768 at 70 Hz

- 3. To force the console to be the S24 monitor at the specified resolution, enter:**

```
ok setenv output-device /iommu/sbus/tcs:resolution
```

- 4. To reset NVRAM so that it is read to overwrite the monitor ID resolution selection, enter:**

```
ok reset
```

- 5. To boot your SPARCstation 5 system, enter:**

```
ok boot -r
```

The monitor resolution is now reset to the specified resolution.